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CHAPTER 8

LOCKOUT TAGOUT

8. LOCKOUT TAGOUT

8.1 GENERAL

Lockout is the preferred method of isolating machines or equipment from energy sources. The following procedure is provided for use in both lockout or tagout programs. This procedure will be used when there are limited numbers or types of machines or equipment, or there is a single power source. For more complex systems, a more comprehensive procedure must be developed, documented, and utilized.

8.2 PURPOSE

This procedure establishes the minimum requirements for the lockout or tagout of energy isolating devices. It shall be used to ensure that the machine or equipment is isolated from all potentially hazardous energy, and locked out and/or tagged out before qualified personnel perform any servicing or maintenance activities where the unexpected energization, start-up, or release of stored energy could cause injury.

8.3 TERMINOLOGY

A. Shall: Indicates a mandatory requirement.

B. Will: Is also used to indicate a mandatory requirement and in addition is used to express a declaration of intent, probability, or determination.

C. Should: Indicates a preferred method of accomplishment.

D. May: Indicates an acceptable or satisfactory method of accomplishment.

8.4 DEFINITIONS

A. Energy Isolating Device: A physical device that prevents the transmission or release of energy, including, but not limited to, the following: A manually operated electrical circuit breaker, a disconnect switch, a slide gate, a slip blind, a line valve, blocks, and similar devices with a visible indication of the position of the device. Push buttons, selector switches, and other control circuit type devices are not energy isolating devices.

B. Energy Source: Any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear, thermal, or other energy source that could cause injury to personnel.

C. Lockout Device: A device that utilizes a lock and key to hold an energy isolating device in the safe position for the purpose of protecting personnel.

D. Tagout Device: A mishap prevention tag that is capable of being securely attached and that, for the purpose of protecting personnel, forbids the operation of an

energy isolating device and identifies the applier or authority who has control of the procedure.

8.5 PROCEDURE

A. Responsibility: Each unit will identify those personnel who will have the responsibility to ensure this procedure is adhered to. A list of qualified personnel will be maintained by each work center. They must be identified by name(s)/job titles.

Those personnel shall be instructed in the safety significance of the lockout (or tagout) procedure. Each new or transferred individual and other personnel whose work operations are, or may be in the area shall be instructed in the purpose and use of the lockout/tagout procedures during initial job safety briefing.

B. Preparation for Lockout/Tagout: Each work center supervisor will conduct a survey to locate and identify all machines and equipment requiring lockout/tagout procedures. A copy of this list will be given to the Unit Safety Representative and the Monroe County Safety office. Each responsible work center supervisor will maintain their list. Each Unit Safety Representative will maintain that unit's master list. Each entry will include: name of equipment, including manufacturer and model number; what and how to lockout; location of equipment and building.

All isolating devices shall be located and identified to be certain which switch(es), valve(s), or other energy isolating devices apply to the machines and equipment to be locked and/or tagged out. More than one energy source (electrical, mechanical, or others) may be involved. (List types and locations of energy isolating device for each machine or equipment).

C. Sequence of Lockout or Tagout System Procedure

1. Notify all personnel that a lockout or tagout system is going to be utilized and the reason. The individual shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards it presents.

2. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.).

3. Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc. (List the type(s) of stored energy and methods used to dissipate or restrain.)

4. Lockout and/or tagout the energy isolating devices with assigned individual lock(s) or tag(s) (method(s) selected; i.e., locks, tags, additional safety measures, etc.).

5. After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate (type(s) of equipment checked to ensure disconnection).

CAUTION: Return operating control(s) to "neutral" or "off" position after the test.

6. Place tags on any extension cords or machinery with electrical cords that have bare wires, cut insulation, frayed insulation or an end that exposes wires.

7. The equipment is now locked out and/or tagged out.

D. Restoring Machines or Equipment to Normal Production Operations

1. After the servicing and/or maintenance is complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.

2. After all tools have been removed from the machine or equipment, guards have been reinstalled, and personnel are in the clear, remove all lockout or tagout devices. Notify personnel that the locks and tags have been removed and the equipment is in service. Operate the energy isolating devices to restore energy to the machine or equipment.

E. Procedure Involving More Than One Person

In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place his or her own personal lockout device and/or tagout device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lockout or tagout device (hasp) may be used.

F. Basic Rules for Using Lockout or Tagout System Procedures

All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy isolating device when it is locked or tagged out.

G. Inspections

1. Periodic inspections of the lockout/tagout program shall be conducted at least annually by the Safety Administrator to ensure that the requirements of this program are in compliance. The inspection shall include at a minimum, the program's procedures, training, and self-inspection.

2. A semi-annual inspection shall be conducted by the unit to ensure compliance with all program elements. The inspection shall include at a minimum, the identification of the machines and equipment on which the lockout/tagout program is used, a review of each person's responsibilities under the program, and that all necessary training has been conducted and documented. The inspection shall be documented to include the date of the inspection and the unit representative conducting the inspection. All documentation will be placed in the Division Safety Management Book.

H. Training

1. Training shall be provided to ensure the purpose and function of the lockout/tagout programs are understood by supervisors, operators, and qualified equipment maintenance personnel and that the knowledge and skills required for safe usage of lockout/tagout procedures are understood. The training shall include the following:

a. Each supervisor, operator, or any qualified equipment maintenance personnel shall receive initial job training on the type and magnitude of applicable energy sources, the methods and means necessary for energy isolation and control, and the use of the lockout/tagout procedures.

b. All other personnel whose duties are or may be in an area where lockout/tagout procedures may be utilized, shall be briefed on the lockout/tagout program during the initial job safety briefing.

2. When lockout/tagout procedures are used, supervisors, operators, or any qualified equipment maintenance personnel shall also receive initial job training on the following use of locks and tags:

a. Tags are essentially warning devices attached to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.

b. When a lock or tag is attached to an energy isolating device, only the person, supervisor or the designated representative, who initially installed the lock or tag can remove it, and it can never be bypassed, ignored, or otherwise defeated.

c. Tags may cause a false sense of security, and their use and limitations need to be understood as part of the overall energy control program.

d. Tags will be securely attached so that they cannot be inadvertently or accidentally detached during use.

3. Retraining shall be provided for supervisors, operators, and a change in their job assignments, a change in machines or equipment, processes that present a new hazard, or when there is a change in the lockout/tagout procedures. Additional retraining shall also be conducted whenever a periodic inspection reveals that there are deviations from, or qualified equipment maintenance personnel's knowledge or use of the lockout/tagout procedures.

4. All training shall be certified and documented and kept up-to-date. The certification shall contain each individual's name and dates of training. This training shall be documented on MC Form SAF-8, "Employee Safety and Health Record".

5. Procedures

a. These written procedures must be readily available to all qualified and responsible individuals.

b. These procedures apply to the industrial environment and do not apply to new construction, or electrical power generation, transmission and distribution facilities.

c. To meet their needs, each unit may want to establish additional items to these basic procedures. The intent of the lockout/tagout program must be met and the above procedures cannot be circumvented.